

FACT SHEET FOR NPDES PERMIT WA-003099-6
FACILITY NAME: STABBERT YACHT AND SHIP LLC
EFFECTIVE JUNE 19, 2006

TABLE OF CONTENTS

INTRODUCTION.....	3
BACKGROUND INFORMATION.....	4
DESCRIPTION OF THE FACILITY	4
PERMIT STATUS	5
SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT	5
WASTEWATER CHARACTERIZATION	5
PROPOSED PERMIT LIMITATIONS AND CONDITIONS.....	6
TECHNOLOGY-BASED EFFLUENT LIMITATIONS	6
SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS	8
NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE	8
NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH	8
NARRATIVE CRITERIA.....	8
ANTIDegradation	8
CRITICAL CONDITIONS.....	9
MIXING ZONES.....	9
DESCRIPTION OF THE RECEIVING WATER	9
SURFACE WATER QUALITY CRITERIA.....	10
WHOLE EFFLUENT TOXICITY	10
HUMAN HEALTH.....	11
SEDIMENT QUALITY.....	11
GROUND WATER QUALITY LIMITATIONS.....	11
COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT	12
MONITORING AND REPORTING	12
OTHER PERMIT CONDITIONS.....	13
SPILL PLAN	13
BEST MANAGEMENT PRACTICES (BMPS)	13
GENERAL CONDITIONS.....	13
PERMIT ISSUANCE PROCEDURES.....	13
PERMIT MODIFICATIONS	13
RECOMMENDATION FOR PERMIT ISSUANCE.....	14
REVIEW BY THE PERMITTEE	14
REFERENCES FOR TEXT AND APPENDICES	15

INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 RCW which defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the State include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty (30) days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the public notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix D--Response to Comments.

GENERAL INFORMATION	
Applicant	Barnacle Point, L.L.C.
Facility Name and Address	2629 NW 54 th Street Seattle, Washington 98107
Type of Facility	Ship repair
SIC Code	3731
Discharge Location	Lake Washington Ship Canal Lake Class Latitude: 47° 40' 01" N Longitude: 122° 23' 05" W
Water Body ID Number	WA-08-0028

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Site History

Barnacle Point is located on the north shore of the Lake Washington Ship Canal, northeast of the Hiram M. Chittenden Locks. The facility has been operated as a shipyard since about 1936. Tri-Star Marine took over the facility and its operations in 1987. Barnacle Point took over operations in 1999.

Description of the Facility

Barnacle Point repairs and constructs new tug boats and fishing vessels. The ships are constructed of steel or aluminum. Ship repair activities are conducted on the drydock with minor repair at pier-side. There is a large indoor work building where most of the steel fabrication and new ship construction occurs. Pressure wash wastewater, batteries, new sandblast grit, and hazardous products and wastes are also stored in this building. There is a small area at the north end of the property that is outdoors and is used for storing equipment. Waste materials are stored here because of the proximity to the road; scrap metal, spent sandblast grit, and solid waste are stored in containers on concrete prior to pick-up and disposal. The rest of the north area is unpaved. Stormwater falling in this area infiltrates. There are no catch basins or storm drains at this facility.

Activities include paint removal by pressure washing and abrasive blasting, painting, welding, and steel fabrication.

Barnacle Point operates one floating drydock at this facility that services about 25 steel and aluminum hulled vessels a year.

Operation	Tonnage	Length	Width	Activity
Drydock	1000 Tons	225 Feet	57 Feet	25 operations per year

Partial or complete hull sandblasting is conducted on 20 percent of the vessels that go into drydock. Spent sandblast grit is recovered from the holds and the drydock floors with brooms, shovels, and a small front-end loader. Recovered, spent sandblast grit is taken by the contractor to Holnam Cement via Western Services for reuse in the manufacture of cement.

Pressure wash wastewater is collected on the drydock. Wastewater flows to one end of the drydock, where it is captured in a collection sump and pumped on-shore to a storage tank prior to hauling offsite and treatment by a waste transportation and disposal company.

Several operational areas may be potential sources of pollution. The permit will prohibit all stormwater discharges from all repair areas on the piers or shore eliminating the potential to pollute.

In addition to pressure wash wastewater, another type of shipyard discharge is drydock flood water. Drydock flood water is discharged when work is completed on a vessel and the drydock is flooded in order to float the vessel off of the drydock. Materials that may have accumulated on the floor of the drydock, such as spent abrasive grit, oil, paints, and solvents, are potential pollution sources to the receiving water. Best Management Practices (BMPs) must be used prior to flooding to prevent contamination of the receiving water. A site plan is attached.

PERMIT STATUS

An NPDES permit was issued to Tri-Star on December 13, 1993; administratively extended on January 4, 1999; and transferred to Barnacle Point on May 20, 1999. An application for permit renewal was submitted to the Department on May 12, 1999, and accepted by the Department on April 29, 2000.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

Tri-Star was issued a Notice of Violation on April 24, 1998, for inadequate tarping allowing sandblast grit to drift up and over the wingwalls and to be carried into the surrounding water. A videotape received from the complainant during the inspection clearly showed drifting sandblast debris from Tri-Star Marine that was released on December 3, 1997. A follow-up order was issued on June 12, 1998, which required dust and sandblast grit confined to the drydock and a reporting requirement for all releases of pollutants to water of the State within 24 hours of Tri-Star becoming aware of the release. Immediate action is required to stop, contain, and cleanup any unauthorized discharge. A Notice of Violation was issued on March 24, 2000, for allowing the F/V Stormy Sea to discharge pollution to state waters and for failure to clean swappable sandblast grit in accessible areas on the drydock.

Tri-Star has generally been in compliance with the effluent limitations for drydock flood water. Tri-Star received inspections on August 20, 1997. Tri-Star was warned of sandblast grit on the drydock. The Department of Ecology and the Washington State Department of Natural Resources inspected the site on May 29, 2000.

WASTEWATER CHARACTERIZATION

The following wastewater characteristics were summarized from the Discharge Monitoring Report data submitted in 1998 through 2000. Average values assume the detection limit for non-detected values.

Drydock Flood Water

Parameter	Average Concentration	Maximum Concentration
Oil and Grease (mg/L)	<5	18
Turbidity (NTU)	1.28	2.8
Total Recoverable Copper (mg/L)	0.093	0.28
Total Recoverable Zinc (mg/L)	0.081	0.25

Hydroblast Wastewater

Measurements at other shipyards and in a 1993 METRO study found hydroblast wastewater well above acute and chronic water quality criteria.

PROPOSED PERMIT LIMITATIONS AND CONDITIONS

Federal and State regulations require that effluent limitations set forth in an NPDES permit must be either technology- or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3 and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC), or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the State of Washington were determined and included in this permit. Ecology does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. Effluent limits are not always developed for pollutants that may be in the discharge but not reported as present in the application. In those circumstances, the permit does not authorize discharge of the non-reported pollutants. Effluent discharge conditions may change from the conditions reported in the permit application. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department of Ecology. The Permittee may be in violation of the permit until the permit is modified to reflect additional discharge of pollutants.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

To date, the United States Environmental Protection Agency (USEPA) has not promulgated effluent guidelines for the shipyard industry. However, the Draft Development Document for Proposed Effluent Limitations Guidelines for Shipbuilding and Repair (EPA 440/1-79/76b) identifies the following pollutant parameters as those which discharge or have the potential to be discharged to a receiving water:

Conventional pollutants: suspended and settleable solids, oil and grease, pH

Priority pollutant metals: chromium, copper, lead, and zinc

Other metals: tin

The following technology-based effluent limitations are established for Barnacle Point:

Pressure Wash Wastewater--Collection, treatment and hauling, recycle or discharge to the sewerage system of hydroblast wastewater is available technology and is used at most shipyards.

Even most boatyards collect and recycle hull wash water. Hydroblast wastewater collection, treatment and recycle, hauling or discharge to the sanitary sewerage system is determined to be the technology-based limitation cited in Chapter 173-220 WAC as all known, available, and reasonable methods of treatment (AKART). The waste stream is collected and hauled by an environmental transport company.

Barnacle Point will be required to continue to follow and improve as necessary Best Management Practices (BMPs). The drydocks will be cleaned to remove spent blasting abrasives and other solid wastes including paint chips, scrap metal, wood, plastic, paper, and welding rods. Prior to undocking, the drydock will be returned to a clean condition using dry cleanup methods (i.e., brooms, vacuums, etc.). The minimum amount of water flushing necessary to return the marine way and screw lift drydock to a clean condition may be used as a final cleanup step as long as the wastewater is not directly discharged to the Lake Washington Ship Canal. No change in turbidity between the drydock flood water and the ambient water will be allowed. Also, no visible sheen will be allowed. Photographs are required to be taken and maintained in a logbook to demonstrate the condition of the drydock floor prior to launching a vessel.

EPA measured a high concentration of oil and grease in flood water discharges at a shipyard. Barnacle Point has achieved control of oil and grease from drydock flood waters of less than 5 mg/L. At Lake Union Drydock, which is a similar facility to Barnacle Point, only three exceedences above the detection limit, of 5 mg/L for oil and grease, occurred over the five year permit cycle from Drydock 5. Five exceedences were reported from Drydock 6 and only one exceedence was reported from Drydock 7. All these occurred in the first two years of the permit cycle. The other 113 reported measurements were less than 5 mg/L. This means 93 percent of all measurements from all drydocks were less than 5 mg/L. The distribution of the data is neither normally nor log normally distributed but is a flat distribution at less than 5 mg/L. This prevents the common method of determining technology-based effluent limits.

However, unquestionably if 5 mg/L has not been exceeded in the last three years of the permit cycle, then it is an achievable discharge level at Lake Union Drydock and at Barnacle Point, a similar facility. This level of control has also been achieved for drydock flood waters at Dakota Creek, Duwamish, Foss, Marco, and Pacific Fishermen shipyards. Based on this achieved level of control and the best professional judgment, the Department determines an oil and grease effluent limitation of 5 mg/L is AKART for the flood water discharges from Barnacle Point's drydocks.

Discharges of wastewater from cooking, dish washing, or showers to the King County Sanitary Sewerage System or hauling offsite is determined to be AKART.

Recycling of solvents on site or offsite disposal is AKART. Zero discharge from maintenance shops and all outdoor repair activities is determined to be AKART.

Discharge of bilge and ballast water to the King County Sanitary Sewerage System subsequent to characterization and approval or hauling offsite for treatment is determined to be AKART.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA, 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the State of Washington.

ANTIDEGRADATION

The State of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body

in the proposed permit. The discharges authorized by this proposed permit should not cause a degradation of existing water quality or beneficial uses.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

MIXING ZONES

The Water Quality Standards allow the Department of Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention and control (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria. Flood water on the drydocks and containment systems is indistinguishable from the ambient surface water except for easily discernible oil and grease.

DESCRIPTION OF THE RECEIVING WATER

Drydock flood water from Barnacle Point is discharged to the Lake Washington Ship Canal, an urban waterway. The Lake Washington Ship Canal is designated as Lake Class in WAC 173-201A-130(58).

The Lake Washington Ship Canal adjoins Lake Union in the center of the city of Seattle. The extent and character of the Lake Washington/Lake Union system have been dramatically altered by human activity in the past 75 years. The 600-acre Lake Union receives water of relatively good quality from Lake Washington and discharges into Puget Sound through the industrialized Ship Canal and the Hiram Chittenden Locks. The Lake Union basin was originally carved by glaciers and until about 75 years ago, when the Montlake Cut was constructed, Lake Union was isolated from Lake Washington and was fed solely by runoff and springs. The Fremont Cut, the Locks, and the Ship Canal were constructed at the same time as the Cut between Portage Bay and Lake Union and expanded the area of fresh water to include Salmon Bay. The Army Corps of Engineers dredges the Ship Canal, controls the water level in the Lake Washington/Lake Union system, and monitors saltwater intrusion through the locks.

Characteristic uses include the following: water supply (domestic, industrial, agricultural); stock watering; fish migration; fish and shellfish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation.

The Lake Washington Ship Canal and Lake Union are included on the 1996 EPA 303(d) list for exceeding sediment bioassay, polychlorinated biphenyls (PCBs), and dieldrin. A study published by the Department in 1992, "Survey of Contaminated Sediments in Lake Union and Adjoining Waters," and another study published in 1996, "Chemical Contaminants in Salmon Bay Sediments," identified widespread sediment contamination throughout the waterbody from PCBs,

polycyclic aromatic hydrocarbons (PAHs), and heavy metals. Sediment contamination reflects deposition of pollutants to the bottom of the lake and canal since the early part of the century from a variety of historic and current industrial point sources as well as nonpoint sources.

SURFACE WATER QUALITY CRITERIA

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

Toxic Pollutants--Federal regulations (40 CFR 122.44) require NPDES permits to contain effluent limits for toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. This process occurs concurrently with the derivation of technology-based effluent limits. Facilities with technology-based effluent limits defined in regulation are not exempted from meeting the Water Quality Standards for Surface Waters or from having surface water quality-based effluent limits.

The following toxics were determined to be present in the discharge: heavy metals.

No Visible Sheen--WAC 173-201A-030(5)(viii) requires that aesthetic values not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the sense of sight, smell, touch, or taste. The national criteria listed by the Environmental Protection Agency in *Quality Criteria for Water 1986* requires surface waters virtually free from floating oils of petroleum origin. The no visible sheen and 5 mg/L effluent limitations for drydock flood water is established to protect this water quality criteria.

WHOLE EFFLUENT TOXICITY

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected by commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response of the organisms. Toxicity tests measure the aggregate toxicity of the whole effluent, and therefore this approach is called whole effluent toxicity (WET) testing.

Toxicity caused by unidentified pollutants is not expected in the effluent from this discharge as determined by the screening criteria given in Chapter 173-205 WAC. Therefore, no whole effluent toxicity testing is required in this permit. The Department may require effluent toxicity testing in the future if it receives information that toxicity may be present in this effluent.

Many shipyards in the Puget Sound area have conducted effluent characterization for acute and chronic toxicity on drydock flood water and toxicity has not been detected. If the Permittee makes process or material changes which, in the Department's opinion, results in an increased potential for effluent toxicity, then the Department may require effluent characterization in a regulatory order, by permit modification, or in the permit renewal. Toxicity is assumed to have increased if WET testing conducted for submission with a permit application fails to meet the

performance standards in WAC 173-205-020, "whole effluent toxicity performance standard." The Permittee may demonstrate to the Department that changes have not increased effluent toxicity by performing additional WET testing after the time the process or material changes have been made.

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

The Department has determined that the Permittee's discharges do not contain chemicals of concern to human health based on existing data.

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400). The approved sediment sampling plan was completed in 1997.

Beak Consultants collected two discrete sediment samples 30 to 45 feet off the drydock and one ambient background sample. Chemistry analyses were performed for those chemicals specified in the Washington State Sediment Management Standards and for tributyltin. The samples were then evaluated with confirmatory biological (bioassay) tests, Microtox (luminescent bacteria), and amphipod (sand flea) to determine sediment toxicity.

Washington has not yet developed freshwater sediment regulatory criteria. However, metals concentrations exceed marine sediment quality criteria in all three samples. Arsenic, copper, mercury, and zinc were all found at concentrations exceeding criteria in the samples. Copper and mercury exceed the Sediment Impact Zone maximum biological effects criteria in all three samples. Bioassay analyses support the chemical findings, with both the amphipod and Microtox analyses showing significant levels of toxicity. Results from the amphipod bioassay analyses exceeded the Sediment Impact Zone maximum biological effects criteria and results from the Microtox bioassay analyses substantially exceeded the Sediment Quality Standards biological effects criteria.

Concentrations of Chemical Contaminants and Bioassay Response to Sediments in Salmon Bay, Seattle, Results of Phase III Sampling, December 2000, concluded the distribution of contaminants in Salmon Bay including the area around Barnacle Point could be characterized by "hot-spots" generally occurring near shore, with cleaner sediments toward the channel center.

GROUND WATER QUALITY LIMITATIONS

The Department has promulgated Ground Water Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the Department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100).

This Permittee has no discharge to ground and therefore no limitations are required based on potential effects to ground water.

*COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED
DECEMBER 13, 1993*

Parameter	Existing Limits	Proposed Limits
Oil and Grease	10 mg/L Maximum Daily 15 mg/L Monthly Average	No visible sheen 5 mg/L
Turbidity	5 NTU over background	None
pH	Within the range of 6.0 and 9.0 std. units	None

The pH effluent limitation for drydock floodwater has been removed from the permit. It has been determined from the monitoring data during the last permit cycle that pH is not a contaminant of concern. This change is allowed under 40 CFR Part 122.44(l)(2)(i)(B)(1), which states that a permit may be reissued with a less stringent effluent limitation if information is available which was not available at the time of permit issuance and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

The drydock flood water oil and grease limit was changed to “no visible sheen” and 5 mg/L, which has been achieved at Northlake Shipyard, Pacific Fishermen, and Lake Union Drydock and ensures compliance with the federal water quality criteria for oil and grease. This standard is more stringent than the previous effluent limitation of 10 mg/L (daily maximum) for floating oil. Emulsified oil may not create a visible sheen and could be present in drydock floodwater. Sampled turbidity and metal discharges in drydock flood water is indistinguishable from background and are independent of drydock BMPs.

MONITORING AND REPORTING

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring and testing schedule is detailed in the proposed permit under Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. The final oil and grease effluent limitation is 5 mg/L for flood water and no visible difference between the canal water and the flood water. Monitoring will consist of logging observations and photographing each lowering of the drydock and quarterly oil and grease sampling of drydock flood water. Sampled turbidity and metals discharges in drydock flood water is indistinguishable from background and is not dependent on drydock BMPs. Low levels of contrast in turbidity can generally be observed visually.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-220-210).

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management practice plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department within twelve (12) months of the permit issuance date.

BEST MANAGEMENT PRACTICES (BMPs)

BMPs to collect, contain wastes, and minimize waste generation during vessel repair and maintenance work have been researched, compiled, and distributed in Washington by the Department, the Lake Union Association, and the Puget Sound Shipbuilders Association. These BMPs are similar to the BMPs published by the state of Virginia for its shipyard industry and have been requested and used by other states and organizations, such as the U.S. Navy's National Shipbuilding Research Program, in the development of their own guidelines. This permit defines minimum functional BMPs and requires Barnacle Point to implement them.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual NPDES permits issued by the Department.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary, to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The Department proposes that this permit be issued for five (5) years, in conformance with the permit issuing year for the Cedar/Green Water Quality Management Area.

REVIEW BY THE PERMITTEE

The proposed permit and fact sheet were reviewed by the Permittee for verification of facts. Only factual items were corrected in the draft permit and fact sheet.

REFERENCES FOR TEXT AND APPENDICES

Bengston, et al.

1989. Draft Best Management Practices Manual for the Shipbuilding and Repair Industry, Commonwealth of Virginia, Virginia Water Pollution Control Board.

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

1979. Draft Development Document for Shipbuilding and Repair, EPA 440/1-79/076b.

Municipality of Metropolitan Seattle (METRO)

1992. Maritime Industrial Waste Project - Reduction of Toxicant Pollution from the Maritime Industry in Puget Sound.

Puget Sound Shipbuilders Association

1990. Best Management Practices for the Shipbuilding and Repair Industry, Seattle.

Washington Department of Ecology

1992. Stormwater Manual for the Puget Sound Basin, Water Quality Program, Lacey.

1994. NPDES Permit Writer's Manual, Water Quality Program, Lacey.

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public Notice of Application was published on 9/30/00 in the *Seattle Times* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department published a Public Notice of Draft (PNOD) in the *Seattle Times* on February 12, 2001, to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below.

Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

This permit and fact sheet were written by John Drabek. Further information may be obtained from the Department by telephone, (425) 649-7293, or by writing to the address listed above.

APPENDIX B--GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural, and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Daily Maximum Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

Mixing Zone--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

Monthly Average--The average of the measured values obtained over a calendar month's time.

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.